



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of

Group Art Unit: 1713

Norio Kashiwa, et al.

Examiner: Lu, C Caixia

Serial No. 10/088,995

Filed: 03/26/2002

For: POLYMER AND PROCESS FOR PREPARING THE SAME

The Honorable Commissioner of Patents and Trademarks

United States Patent and Trademark Office

Washington, D. C. 20231

DECLARATION UNDER 37 CFR 1.132

Sir:

I, Shingo MATSUO, declare and state that:

In March, 1991, I was graduated from Kyushu Institute of Technology (KIT), department of engineering, and received a degree of Bachelor of Engineering from KIT. In March, 1993, I was graduated from the graduate course of KIT, majoring material engineering, and received a degree of Master of Engineering from KIT.

Since April, 1993, I have been an employee of MITSUI Petrochemical Industries Ltd. (now Mitsui Chemicals, Inc.) and, till the present time, I have been engaged in research and development work concerning polymerization catalyst of olefins in Polymer Research Laboratory of the same company.

I am a co-inventor of the above identified application.

I carried out the following experiments.

[Inventive Experiment 1]

Example 1 of the present specification was repeated. The resultant was mixture of unreacted macromonomer and branched polyolefin which is a copolymer of ethylene and macromonomer. Weight ratio of the unreacted macromonomer and branched polyolefin was measured. In the resultant, unreacted macromonomer content was only one third. Results are shown in below together with the results of following Additional Experiments.

[Additional Experiments]

Example 1 of the present specification was repeated except that MAO-2 used in Example 2 was used and transition metal compound (A-1) and transition metal compound (B-1) were added separately. The transition metal compounds (A-1) and (B-1) are those defined in page 96 of the specification. In Additional Examples 1 to 4, time difference between first addition of compound (B-1) and second addition of compound (A-1) was varied to prepare macromonomers having different molecular weights.

Results are shown in below.

	Polymerization condition			Weight average molecular weight of macromonomer	Weight ratio Macromonomer / branched polyolefin
	aluminoxane	Time difference* <sup>3</sup> (minutes)	Polymerization time (minutes)		
Inv. Exp. 1	MAO-1* <sup>1</sup>	0	10	2000	1/2
Add. Exp. 1	MAO-2* <sup>2</sup>	1.5	10	3500	1/1
Add. Exp. 2	MAO-2	3.0	10	4500	10/1
Add. Exp. 3	MAO-2	3.0	30	4500	8/1
Add. Exp. 4	MAO-2	6.0	10	9000	50/1

\*1: aluminoxane used in Example 1 of the specification

\*2: aluminoxane used in Example 2 of the specification

\*3: time difference between first addition of compound (B-1) and second addition of compound (A-1)

The undersigned declares further that all statements made herein of my own knowledge are true and that all statements made

on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

respectfully submitted,

September 17 , 2004

Shingo Matsuo  
Shingo MATSUO